

WHAT IS CLAIMED IS:

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1. A circuit connection structure, comprising: a first substrate having electrode terminals formed thereon, a semiconductor device having first electrodes and second electrodes with the first electrodes connected to the electrode terminals of the first substrate, a flexible wiring member having thereon a pattern of conductors each extending from a first end to a second end on the flexible wiring member with the first ends of the conductors connected to the second electrodes of the semiconductor device, and a circuit board having thereon electrode terminals connected to the second ends of the conductors on the flexible wiring member.
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2. A connection structure according to Claim 1, wherein said semiconductor device has the first and second electrodes as output and input electrodes, respectively, thereof so as to receive input data from the circuit board and supply output signals to the first substrate, thereby driving an electronic device including the first substrate.
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3. A connection structure according to Claim 1, wherein the second electrodes of the semiconductor device are connected to the first ends of the conductors on the flexible wiring member by a tape

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automated bonding method.

4. A connection structure according to Claim 1,  
wherein the first electrodes of said semiconductor  
device and the electrode terminals on the first  
substrate are connected to each other substantially  
solely with an anisotropic conductive adhesive.

5. A connection structure according to Claim 1,  
10 wherein the second ends of the conductors on the  
flexible wiring member and the electrode terminals on  
the circuit board are connected to each other with a  
solder.

15 6. A connection structure according to Claim 1,  
wherein the second ends of the conductors on the  
flexible wiring member and the electrode terminals on  
the circuit board are connected to each other with an  
anisotropic conductive adhesive.

20 7. A connection structure according to Claim 1,  
wherein a connecting part between the second  
electrodes of the semiconductor device and the first  
ends of the conductors on the flexible wiring member  
25 is sealed with a resin.

8. A connection structure according to Claim 1,

wherein the second electrodes of the semiconductor device are connected to the first <sup>conductive</sup> ends of the conductors of the flexible wiring member with an anisotropic conductive adhesive.

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9. A connection structure according to Claim 1, further including a reinforcing plate fixedly supporting the first substrate and the circuit board.

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10. A circuit connection structure, comprising: a first substrate having electrode terminals formed thereon, a semiconductor device having first electrodes and second electrodes with the first electrodes connected to the electrode terminals of the first substrate, a flexible wiring member comprising a plurality of conductor wires each extending from a first end to a second end with the first ends of the conductor wires connected to the second electrodes of the semiconductor device, and a circuit board having thereon electrode terminals connected to the second ends of the conductor wires.

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11. A connection structure according to Claim 10, wherein said semiconductor device has the first and second electrodes as output and input electrodes, respectively, thereof so as to receive input data from the circuit board and supply output signals to the

first substrate, thereby driving an electronic device including the first substrate.

12. A connection structure according to Claim 10,  
5 further including a reinforcing plate fixedly supporting the first substrate and the circuit board.

13. A display apparatus, comprising:  
a display panel comprising at least one  
10 substrate having thereon pixel electrodes extending to form electrode terminals on a peripheral side of the substrate,  
a semiconductor device having input  
electrodes, and output electrodes for supplying drive  
15 waveforms to the pixel electrodes of the display panel, and  
a circuit board having electrode terminals for supplying an electric power and control signals to the semiconductor device; wherein  
20 the electrode terminals on said at least one substrate of the display panel are connected to the output electrodes of the semiconductor device, and  
the semiconductor device is connected to the circuit board via a flexible wiring member having  
25 thereon a pattern of conductors each extending from a first end to a second end so that the input electrodes of the semiconductor device are connected to the first

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ends of the conductors on the flexible wiring member, and the second ends of the conductors of the flexible wiring member are connected to the electrode terminals of the circuit board.

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14. A connection structure according to Claim 13, wherein the second electrodes of the semiconductor device are connected to the first ends of the conductors on the flexible wiring member by a tape-  
10 automated bonding method.

15. A display apparatus according to Claim 13, wherein the first electrodes of said semiconductor device and the electrode terminals on said one substrate of the display panel are connected to each other substantially solely with an anisotropic conductive adhesive.

W/P.12 16. A display apparatus according to Claim 13,  
20 wherein the second <sup>conductive</sup> ends of the conductors on the flexible wiring member and the electrode terminals on the circuit board are connected to each other with a solder.

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17. A display apparatus according to Claim 13, wherein the second ends of the conductors on the flexible wiring member and the electrode terminals on

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the circuit board are connected to each other with an anisotropic conductive adhesive.

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18. A display apparatus according to Claim 13,  
5 wherein a connecting part between the second electrodes of the semiconductor device and the first ends of the conductors on the flexible wiring member is sealed with a resin.

10 19. A display apparatus according to Claim 13,  
wherein the second electrodes of the semiconductor device are connected to the first ends of the conductors of the flexible wiring member with an anisotropic conductive adhesive.

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20. A display apparatus according to Claim 13,  
further including a reinforcing plate fixedly supporting said at least one substrate and the circuit board.

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21. A display apparatus according to Claim 20  
wherein said reinforcing plate is bonded to and supports said one substrate and the circuit board from sides opposite to sides carrying the electrode  
25 terminals of said one substrate and the circuit board.

22. A display apparatus according to Claim 20,

wherein another substrate is disposed opposite to said one substrate from the display panel, and said reinforcing plate is bonded to and supports said another substrate from its side not facing said one 5 substrate and said circuit board from its side opposite to the side carrying the electrode terminals.

23. A display apparatus according to Claim 13, wherein said display panel is a liquid crystal display 10 panel.

24. A display apparatus, comprising:  
a display panel comprising at least one substrate having thereon pixel electrodes extending to 15 form electrode terminals on a peripheral side of the substrate,

a semiconductor device having input electrodes, and output electrodes for supplying drive waveforms to the pixel electrodes of the display 20 panel, and

a circuit board having electrode terminals for supplying an electric power and control signals to the semiconductor device; wherein

the electrode terminals on said at least one 25 substrate of the display panel are connected to the output electrodes of the semiconductor device, and

the semiconductor device is connected to the

circuit board via a flexible wiring member comprising a plurality of conductor wires each extending from a first end to a second end so that the input electrodes of the semiconductor device are connected to the first ends of the conductor wires of the flexible wiring member, and the second ends of the conductor wires of the flexible wiring member are connected to the electrode terminals of the circuit board.

10        25. A display apparatus according to Claim 24, further including a reinforcing plate fixedly supporting said at least one substrate and the circuit board.

15        26. A display apparatus according to Claim 24, wherein said display panel is a liquid crystal display panel.

20        27. A tape carrier package structure comprising a semiconductor device having first electrodes arranged data pitch of 20 - 60  $\mu\text{m}$ , and a flexible wiring member comprising a flexible carrier film and a pattern of conductors formed on the carrier film, each conductor on the carrier film extending from a first end to a  
25        second end, the first ends of the conductors being connected to the second electrodes of the semiconductor device.

28. A structure according to Claim 27, wherein  
said semiconductor device has the first and second  
electrodes as output and input electrodes,  
respectively, thereof.

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29. A structure according to Claim 27, wherein  
the second electrodes of the semiconductor device are  
connected to the first ends of the conductors on the  
flexible wiring member by a tape-automated bonding  
10 method.

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